REMARKS

Claims 1-28 are pending in this application. By this Amendment, the title, Abstract, specification, Figs. 1, 2, 6 and 13 and claims 1-28 are amended and claims 29-52 are cancelled. Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "Version With Markings To Show Changes Made."

The Office Action indicates that the title is not descriptive. It is respectfully submitted that the new title is indicative of the invention to which the claims are directed.

The Office Action objects to the Abstract because it is not limited to a single paragraph. The attached Substitute Abstract is a single paragraph. Withdrawal of the objection to the Abstract is respectfully requested.

The Office Action objects to the drawings. The attached Request for Approval of Drawing Corrections amends Figures 1 and 2 to label them as prior art, and appropriately amends Figures 6 and 13 as suggested in the Office Action. Additionally, block 1201 in Figure 12 and blocks 1311 and 1315 in Figure 13 have been properly identified in the specification. Withdrawal of the objection is respectfully requested.

The Office Action objects to the disclosure because of informalities. In reviewing the Office Action's suggestions, the Office Action references page 32. However, these sections appear to be on page 37.

The specification has been amended as suggested in the Office Action. Additionally, the motion compensation processor has been identified as element 616. Withdrawal of the objection to the specification is respectfully requested.

The Office Action also rejects claims 1-52 under 35 U.S.C. § 112, second paragraph. Claims 29-52 have been cancelled and thus their rejection is moot. It is respectfully submitted that the above amendments to the pending claims obviate the grounds for rejection. Additionally, the multiple dependencies have been deleted. Withdrawal of the rejection is respectfully requested.

The Office Action rejects claims 1-16 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. In particular, the Office Action indicates that the claims set forth a method of synthesizing an interframe predicted image and recites steps of calculations that solve a purely mathematical problem without limitation to a practical application, essentially a series of steps to be performed on a computer, and merely manipulates an abstract idea which lacks any use.

However, the Office Action is clearly incorrect. As set forth in State Street Bank & Trust Co. v. Signatures Fin. Group, Inc. , 47 U.S.P.Q. 2d 1596 (Fed. Cir. 1998), when data is taken through a series of mathematical calculations to determine a useful, concrete and tangible result, the claims comply with 35 U.S.C. § 101. The Office Action is incorrect that the claims merely manipulate an abstract idea. The application relates to a very technological methodology of great use.

The present application relates to an image encoding and decoding method and device. This is a useful, concrete and tangible result. More specifically, the present invention relates to an image encoding and decoding method, an image encoding and decoding device and a method of synthesizing interframe predicted images by calculating a motion vectors of pixels in an image, by performing interpolation/extrapolation of motion vectors of representative points. The present application sets forth specific details of the embodiments of the present invention relating to imaging encoding and decoding. Claim 1, for example relates to synthesizing an interframe predicted image. This involves steps relating to motion vectors. The calculations relate to a useful, concrete and tangible result relating to imaging. As such, the respective features as set forth in claim 1 and the other pending claims, relate to a useful, concrete and tangible result. The claims clearly comply with 35 U.S.C. § 101.

The Office Action indicates that a prior art rejection was not provided because of the indefiniteness of the claims. Applicants respectfully request that the Patent Office review all known prior art for this application.

CONCLUSION

In view of the foregoing, it is respectfully submitted that the above-identified application is in condition for allowance. Favorable

consideration and prompt allowance of claims 1-28 are respectfully requested.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (520.37902X00).

Respectfully submitted,

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Attachments: Request for Approval of Drawing Corrections
Abstract

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

The paragraph beginning on page 7, line 1 has been amended as follows:

In order to achieve the aforesaid objective, this invention provides an image encoding and decoding method for synthesizing an interframe predicted image by global motion compensation or warping prediction wherein global motion vectors are found by applying a two-stage interpolation/extrapolation to motion vectors of plural representative points having a spatial interval with a characteristic feature. More specifically, this invention provides a method of synthesizing an interframe predicted image wherein, when the motion vector of a pixel is calculated by performing bilinear interpolation/extrapolation on motion vectors of four representative points of an image where the pixel sampling interval in both the horizontal and vertical directions is 1 and the horizontal and vertical coordinates of the sampling points are obtained by adding [tointegers] to integers (where w=wn/wd, wn is a non-negative integer, wd is the hw power of 2, hw is a non-negative integer and wn<wd), there are representative points at coordinates (i,j), (i+p, j), (i, j+q), (i+p, j+q) (where i, j, p, q are integers), the horizontal and vertical

components of the motion vectors of representative points take the values of integral multiples of 1/k (where k is the hk power of 2, and hk is a non-negative integer), and when the motion vector of a pixel at the coordinates (x+w, y+w) is found, the horizontal and vertical components of the motion vector at the coordinates (x+w, j) are found by linear interpolation/extrapolation of motion vectors of representative points at coordinates (i, j), (i+p, j), as values which are respectively integral multiples of 1/z (where z is the hz power of 2, and hz is a non-negative integer), and after finding the horizontal and vertical components of the motion vector at the coordinates (x+w, j+q) by linear interpolation/extrapolation of motion vectors of representative points at coordinates (i, j+q), (i+p, j+q), as values which are respectively integral multiples of 1/z (where z is the hz power of 2, and hz is a non-negative integer), the horizontal and vertical components of the motion vector of the pixel at the coordinates (x+w, y+w) are found by linear interpolation/extrapolation of the aforesaid two motion vectors at the coordinates (x+w, j), (x+w, j+[p]q) as values which are respectively integral multiples of 1/m (where m is the hm power of 2, and hm is a non-negative integer).

The paragraph beginning on page 31, line 21 has been amended as follows:

Fig. 6 shows the configuration of one embodiment of an image encoding device 600 according to this invention.

The paragraph beginning on page 37, line 5 has been amended as follows:

Fig. 11 shows a typical construction of a predicted image synthesizer 1103 of a decoder which decodes the bit stream generated by an image encoding device using a motion compensation processor [901] 616. Numbers which are the same as those of other diagrams denote the same components. The global motion compensation predicted image 903 is synthesized in the global motion compensation predicted image synthesizer 911 using global motion compensation parameters 904 extracted from the motion information 702 in the splitting unit [1002] 1102, relative to the decoded image 710 of the immediately preceding frame. The block matching predicted image 906 is synthesized in the block matching predicted image synthesizer 1101 using block matching motion vector information 907 extracted from the motion information 702 relative to the decoded image 710 of the immediately preceding frame. A selection switch [1104] 908 selects either of these schemes for each block, i.e., the predicted image 903 due

to global motion compensation or the predicted image 906 due to block matching, based on the selection information 909 extracted from the motion information 702. After this selection process is applied to each block, the final predicted image 712 is synthesized.

The paragraph beginning on page 38, line 1 has been amended as follows:

Fig. 12 shows the structural configuration of the global motion compensation predicted image synthesizer 1201 according to this invention. It will be assumed that the motion vectors of the corners of the compensation image are transmitted as global motion parameters. The motion vectors of representative points are calculated by equations (9), (10) in a computing unit 1205 using information 1204 relating to motion vectors of the corners of the image. Using information 1206 relating to the motion vectors of these representative points, the motion vectors of provisional representative points are calculated for each line using equation (11) in a computing unit 1207. Then, by using information 1208 relating to the motion vectors of these provisional representative points, motion vectors for each pixel are calculated from equation (12) in a computing unit 1209. At the same time, using information 1210 relating to the motion vectors of each pixel and the decoded image 1202 of the

immediately preceding frame, a global motion compensation predicted image 1203 is synthesized and output by a processing unit 1211.

The paragraph beginning on page 42, line 18 has been amended as follows:

Returning now to Fig. 13, immediately before the process in the step 1308 is started, when the current frame is an I frame, the input image is stored in the frame memory A, and when the current frame is a P frame, a differential image between the input image and predicted image is stored in the frame memory A. In the step [1308] <u>1309</u>, DCT is applied to the image stored in this frame memory A, and the DCT coefficients calculated here are output to the output buffer after being quantized. Further, in a step 1310, inverse quantization and inverse DCT are applied to these quantized DCT coefficients, and the image obtained as a result is stored in the frame memory B. Next, <u>in step 1311</u> it is again determined whether the current frame is an I frame, and when the image is not an I frame, the images in the frame memories B and C are added in a step 1312, and this result is stored in the frame memory B. Here, the encoding of one frame is finished, and the image stored in the frame memory B immediately before processing of a step 1313 is performed is a reconstructed image of the frame for which encoding has just been completed (same as that obtained on the decoding side). In the step 1313, it is determined whether the frame for which coding is complete is

the last frame, and if it is the last frame, coding is terminated in step 1315. When it is not the last frame, 1 is added to N in a step 1314, the routine returns to the step 1303 again, and encoding of the next frame is started. It will be understood that although the flowchart described here relates to a method of applying block matching to the global motion compensation predicted image synthesized as a result of performing global motion compensation (method corresponding to a device using a motion compensation processor 801 of Fig. 8), a flowchart relating to a method of performing global motion compensation and global matching in parallel (method corresponding to a device using a motion compensation processor 901 of Fig. 9) can be prepared by making a slight modification.

IN THE CLAIMS

Claims 1-28 have been amended as follows:

1. (Amended) A method of synthesizing an interframe predicted image comprising:

a first step for calculating the values of motion vectors of four representative points at coordinates (i,j), (i+p, j), (i, j+q), (i+p, j+q) (where i, j, p, q are integers, the horizontal and vertical components of the motion vectors of the representative points

taking the values of integral multiples of 1/k where k is the hk power of 2, and hk is a non-negative integer),

a second step for calculating the motion vectors of a pixel at coordinates (x+w, y+w) by performing bilinear interpolation/extrapolation on the motion vectors of the four representative points of an image where the pixel sampling interval in both [the] horizontal and vertical directions is 1 and [the] horizontal and vertical coordinates of [the] sampling points are obtained by adding w to integers (where w=wn/wd, wn is a non-negative integer, wd is a hw power of 2, hw is a non-negative integer and wn<wd), where the aforesaid second step comprised of:

a third step for calculating the horizontal and vertical components of motion vectors at the coordinates (i, y+w) as numerical values which are respectively integral multiples of 1/z (where z is the hz power of 2, and hz is a non-negative integer) by linear interpolation/extrapolation of the motion vectors of the representative points at the coordinates (i, j), (i, j+q), and for calculating the horizontal and vertical components of the motion vectors at the coordinates (i+p, y+w) as values which are respectively integral multiples of 1/z (where z is the hz power of 2, and hz is a non-negative integer) by linear interpolation/extrapolation of the motion vectors of the representative points at coordinates (i+p, j), (i+p, j+q), and

a fourth step for calculating the horizontal and vertical components of the motion vectors of the pixel at the coordinates (x+w, y+w) as values which are respectively integral multiples of 1/m (where m is the hm power of 2, and hm is a non-negative integer), found by linear interpolation/extrapolation of the [aforesaid] two motion vectors at the coordinates (i, y+w), (i+p, y+w).

2. (Amended) A method of synthesizing an interframe predicted image comprising:

a first step for calculating the values of motion vectors of four representative points at coordinates. (i,j), (i+p, j), (i, j+q) (i+p, j+q) (where i, j, p, q are integers, the horizontal and vertical components of the motion vectors of the representative points taking the values of integral multiples of 1/k where k is the hk power of 2, and hk is a non-negative integer),

a second step for calculating the motion vectors of a pixel at coordinates (x+w, y+w) by performing bilinear interpolation/extrapolation on the motion vectors of four representative points of an image where the pixel sampling interval in both [the] horizontal and vertical directions is 1

and [the] horizontal and vertical coordinates of [the] sampling points are obtained by adding w to integers (where w=wn/wd, wn is a non-negative integer, wd is a hw power of 2, hw is a non-negative integer and wn<wd), where the [aforesaid] second step comprised of:

a third step for calculating the horizontal and vertical components of motion vectors at the coordinates (x+w, j) as numerical values which are respectively integral multiples of 1/z (where z is the hz power of 2, and hz is a non-negative integer) by linear interpolation/extrapolation of the motion vectors of the representative points at the coordinates (i, j), (i+p, j), and for calculating the horizontal and vertical components of the motion vectors at the coordinates (x+w, j+q) as values which are respectively integral multiples of 1/z (where z is the hz power of 2, and hz is a non-negative integer) by linear interpolation/extrapolation of the motion vectors of the representative points at coordinates (i, j+q), i+p, j+q), and

a fourth step for calculating the horizontal and vertical components of the motion vectors of the pixel at the coordinates (x+w, y+w) as values which are respectively integral multiples of 1/m (where m is the hm power of 2, and hm is a non-negative integer), found by linear interpolation/extrapolation of the [aforesaid] two motion vectors at the coordinates (x+w, j), (x+w, j+[p]q).

3. (Amended) A method of synthesizing an interframe prediction image [as defined in] according to Claim 1, wherein, when the motion vectors of a pixel at the coordinates (x+w, y+w) are found using (u0, v0), (u1, v1), (u2, v2), (u3, v3), which are the horizontal and vertical components of the motion vectors of the representative points at the coordinates (i,j), (i+p, j), (i, j+q), (i+p, j+q) multiplied by k, (uL(y+w), vL(y+w)) which are the horizontal and vertical components of the motion vectors at a point having the coordinates (i, y+w) multiplied by z, are found by calculating:

uL (y+w) = (((q. wd – [y] (y-i).wd-
wn) u0 + [y] (y-i).wd + wn) u2)z)////(q.k.wd),
vL(y+w)=(((q.wd-[y](y-i).wd-
wn) v0+([y](y-i).wd+wn) v2) z)////(q.k.wd)

(where *[////]* is a division wherein the computation result is rounded to the nearest integer when the result of an ordinary division is not an integer, and the order of computational priority is equivalent to multiplication and division),

(uR(y+w), vR(y+w)) which are the horizontal and vertical components of the motion vector at a point having the coordinates (i+p, y+w) multiplied by z, are found by calculating:

uR(y+w)=(((q.wd-[y](y-i).wd-

wn) u1 + ([y](y-i).wd+wn) u3) z) //// (q.k.wd)
vR (y+w)=(((p.wd-[y](y-i).wd-
wn) v1 + ([y](y-i).wd+wn)v3)z)////(q.k.wd), and
(u(x+w), y+w), v(x+w, y+w))

which are the horizontal and vertical components of the motion vector of a pixel at the coordinates (x+w, y+w) multiplied by m, are found by calculating:

u(x+w, y+w)=(((p.wd-[x](x-i).wd-
wn) uL (y+w)+([x](x-i).wd+wn) uR (y+w))m)//(p.z.wd)
v(x+w, y+w)=(((p.wd-[x](x-i).wd-
wn) vL (y+w) + ([x](x-i).wd+wn)vR) (y+w))m)//(p.z.wd)

(where *[//]* is a division wherein the computation result is rounded to the nearest integer when the result of an ordinary division is not an integer, and the order of priority is equivalent to multiplication and division).

4. (Amended) A method of synthesizing an interframe [prediction] predicted image [as defined in] according to Claim 2, wherein, when the motion vectors of a pixel at the coordinates (x+w, y+w) are found using (u0, v0), (u1, v1), (u2, v2), (u3, v3), which are the horizontal and vertical components of the motion vectors of the representative points at the coordinates (i,j), (i+p, j), (i, j+q), (i+p, j+q) multiplied by k,

(uT(x+w), vT(x+w)) which are the horizontal and vertical

components of the motion vectors at a point having the coordinates (x+w, j) multiplied by z, are found by calculating:

uT(x+w)=(((p.wd-[x](x-i).wd-
wn) u0+([x](x-i).wd+wn)u1)z)////(p.k.wd),
vT (x+w)=(((p.wd-[x](x-i).wd-
wn) v0+([x](x-i).wd+wn)v1)z)////(p.k.wd)

(where [////] is a division wherein the computation result is rounded to the nearest integer when the result of an ordinary division is not an integer, and the order of computational priority is equivalent to multiplication and division),

(uB(y+w), vB(y+w)) which are the horizontal and vertical components of the motion vectors at a point having the coordinates (x+w, j+p) multiplied by z, are found by calculating: uB(x+w)=(((p.wd-(x-i).wd- wn)u2+([x](x-i).wd +wn)u3)z)////(p.k.wd), vB(x+w)=(((p.wd-[x](x-i).wd- wn)v2+([x](x-i).wd+wn)v3)z)////(p.k.wd), and

(u(x+w), y+w), v(x+w, y+w)) which are the horizontal and vertical components of the motion vectors of a pixel at the coordinates (x+w, y+w) multiplied by m, are found by calculating:

u (x+w, y+w)=(((q.wd-[y](y-i).wd-wn)uT(x+w)+[y](y-i).wd+wn)uB(x+w))m)//(q.z.wd)
v(x+w, y+w)=(((q.wd-[y](y-i).wd-
wn)vT(x+w)+ ([y](y-i).wd+wn)vB(x+w))m)//(q.z.wd)

(where *[//]* is a division wherein the computation result is rounded

to the nearest integer when the result of an ordinary division is not an integer, and the order of priority is equivalent to multiplication and by division).

5. (Amended) A method of synthesizing an interframe predicted image [as defined in] according to Claim 1, wherein the absolute value of p is the α power of 2 (where [a] α is a non-negative integer).

6. (Amended) A method of synthesizing an interframe predicted image [as defined in] according to Claim 2 [or 4], wherein the absolute value of q is the β power of 2 (where β is a non-negative integer).

7. (Amended) A method of synthesizing an interframe predicted image [as defined in] according to Claim 1, wherein the absolute values of p and q are respectively the α power of 2 and β power of 2 (where α , β are non-negative integers).

8. (Amended) A method of synthesizing an interframe predicted image [as defined in] according to Claim 2, wherein the absolute

values of p and q are respectively the α power of 2 and β power of 2 (where α, β are non-negative integers).

9. (Amended) A method of synthesizing an interframe predicted image [as defined in] according to Claim 5, wherein α+hz is a positive integral multiple of 8, and w is 0.

10. (Amended) A method of synthesizing an interframe predicted image [as defined in] according to Claim 6, wherein β+hz is a positive integral multiple of 8, and w is 0.

11. (Amended) A method of synthesizing an interframe predicted image [as defined in] according to Claim 5, wherein α+hz+hw is a positive integral multiple of 8, and w>0.

12. (Amended) A method of synthesizing an interframe predicted image [as defined in] according to Claim 6, wherein β+hz+hw is a positive integral multiple of 8, and w>0.

13. (Amended) A method of synthesizing an interframe predicted image [as defined in] according to Claim 9, wherein the value of hz is varied according to the value of α so that α+hz is 16 or less for plural different values of α.

14. (Amended) A method of synthesizing an interframe predicted image [as defined in] <u>according to</u> Claim 10, wherein the value of hz is varied according to the value of β so that β+hz is 16 or less for plural different values of β.

15. (Amended) A method of synthesizing an interframe predicted image [as defined in] <u>according to</u> Claim 11, wherein the value of hz is varied according to the value of α so that α+hz+hw is 16 or less for plural different values of α.

16. (Amended) A method of synthesizing an interframe predicted image [as defined in] <u>according to</u> Claim 12, wherein the value of hz is varied according to the value of β so that β+hz+hw is 16 or less for plural different values of β.

17. (Amended) A method of synthesizing an interframe predicted image [as defined in any of Claims 1 to 18] <u>according to Claim 1</u>, wherein $z \geq m$.

18. (Amended) A method of synthesizing an interframe predicted image [as defined in any of Claims 1 to 17] <u>according to Claim 1</u>, wherein $k \geq z$.

19. (Amended) A method of synthesizing an interframe predicted image [as defined in any of Claims 1 to 18] according to Claim 1, wherein the absolute values of p and q are respectively different from the number of horizontal and vertical pixels in the image.

20. (Amended) A method of synthesizing an interframe predicted image [as defined in any of Claims 1 to 19] according to Claim 1, wherein, when r is the number of pixels in the horizontal direction and s is the number of pixels in the vertical direction of the image (where r, s are positive integers), 1/2 of the absolute value of p is less than r, the absolute value of p is equal to or greater than r, 1/2 of the absolute value of q is less than s, and the absolute value of q is equal to or greater than s.

21. (Amended) A method of synthesizing an interframe predicted image [as defined in any of Claims 1 to 19] according to Claim 1, wherein, when r is the number of pixels in the horizontal direction and s is the number of pixels in the vertical direction of the image (where r, s are positive integers), the absolute value of p is equal

to or less than r, twice the absolute value of p is larger than r, the absolute value of q is equal to or less than s, and twice the absolute value of q is larger than s.

22. (Amended) A method of synthesizing an interframe predicted images [as defined in any of Claims 1 to 21] according to Claim 1, wherein,

when the number of pixels in the horizontal and vertical directions of the image is respectively r and s (where r and s are positive integers), and the pixels of the image lie in a range wherein the horizontal coordinate is from 0 to less than r and the vertical coordinate is from 0 to less than s, (u0, v0), (u1, v1), (u2, v2), (u3, v3)which are expressed by

u' (x, y)=(((s.cd-cn-y.cd)((r.cd-cn-x.cd)u00 + (x.cd+cn)u01) + (y.cd+cn) ((r.cd-cn-x.cd)u02+(x.cd+cn)u03))k) ///(r.s.n.cd),

v'(x, y)=(((s.cd-cn-y.cd)((r.cd-cn-x.cd)v00 +(x.cd+cn)v0l)+ (y.cd+cn) ((r.cd-cn-x.cd)v02+(x.cd+cn)v03))k)///(r.s.n.cd),

u0=u' (i, j)

v0=v' (i, j)

u1=u' (i+p, j)

v1=v' (i+p, j)

u2=u' (i, j+q)

v2=v' (i, j+q)

u3=u' (i+p, j+q)

v3=v' (i+p, j+q)

(where [///] is a division wherein the computation result is rounded to the nearest integer when the result of an ordinary division is not an integer, and the order of priority is equivalent to multiplication and division), are used as the k times horizontal and vertical components of motion vectors of representative points (i,j), (i+p, j), (i, j+q), (i+p, j+q), by using (u00, v00), (u01, v01), (u02, v02), (u03, v03) (where u00, v00, u01, v01, u02, v02, u03, v03 are integers), which are n times (where n is a positive integer) motion vectors at the corners of an image situated at the coordinates (-c, -c), (r-c, -c), (-c, s-c), (r-c, s-c) (where c=cn/cd, cn is a non-negative integer, cd is a positive integer and cn<cd), whereof the horizontal and vertical components take the values of integral multiples of 1/n.

23. (Amended) An image encoding method using a method of synthesizing an interframe predicted image comprising:

a first step for [outputting a difference between an image signal of a current frame which it to be encoded and an interframe predicted image as a differential image] <u>synthesizing an interframe predicted image by performing motion compensation using a</u>

decoded image of a previously encoded frame and an input image of current frame,

a second step for generating a differential image between said interframe predicted image and said input image of said current frame,

a third step for transforming [the signal of] said differential image to obtain a transformed signal which is then encoded,

a fourth step for applying an inverse transformation to said transformed signal to produce a decoded differential image [of said differential image], and

a fifth step for [producing an interframe predicted image signal for the frame immediately following said current frame image signal using] generating a decoded image of said current frame by adding said decoded differential image and said interframe predicted image, wherein

said fifth step is performed by an interframe predicted image synthesis method [as defined in any of Claims1 to 16] according to Claim 1.

24. (Amended) An image [coding] encoding method [as defined in Claim 23, wherein said fifth step comprises a step for detecting and encoding information relating to motion vectors of the representative points] using a method of synthesizing an interframe

predicted image comprising:

a first step for synthesizing an interframe predicted image by performing motion compensation using a decoded image of a previously encoded frame and an input image of current frame,

a second step for generating a differential image between said interframe predicted image and said input image of said current frame,

a third step for transforming said differential image to obtain a transformed signal which is then encoded,

a fourth step for inverse transforming said transformed signal to obtain a decoded differential image, and

a fifth step for synthesizing a decoded image of a current frame by adding said decoded differential image and said interframe predicted image wherein,

said first step is performed by an interframe predicted image method as defined in claim 22, and

said first step comprises a step for detecting and encoding information relating to said motion vectors at the corners of an image.

25. (Amended) An image coding method [as defined in] according to Claim 23, wherein the representative points in said fifth step are the corners of the image.

26. (Amended) An image decoding method comprising:

a first step for inputting an interframe coding signal of an image frame which is to be decoded and motion vector information concerning said image frame,

a second step for transforming said interframe coding signal into a decoded differential signal,

a third step for producing an interframe predicted image from a decoded image signal of another image frame different in time [form] <u>from</u> said image to be decoded and said motion vector information, and

a fourth step for adding the decoded differential signal and said interframe predicted image signal to obtain a decoded image signal of said image frame which is to be decoded, wherein

said third step is performed by an interframe predicted image synthesis method [as defined in any of Claims 1-16] <u>according to Claim 1</u>.

27. (Amended) An image decoding method [as defined in] according to Claim 26, wherein said plural representative points are the corner points of said image used by reproducing information relating to the motion vectors of the representative points directly encoded as encoded data.

28. (Amended) An image decoding method [as defined in] according to Claim 26, wherein said plural representative points are the corner points of said image.